REMARKS

By this reply, claims 7 and 11 have been cancelled without prejudice to or disclaimer of the subject matter contained therein; and claims 1-3, 19, 24 and 26 have been amended; thereby leaving claims 1-6, 8-10 and 12-26 pending in the application. It is submitted that the claim amendments do not raise any new issue, do not add any new matter, and place the application in better condition for appeal. Accordingly, it is submitted that the amendments should be entered. Favorable consideration is respectfully requested in light of the following remarks.

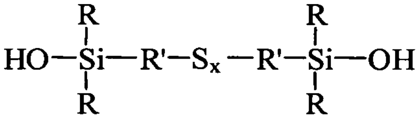
Rejections Under 35 U.S.C. § 103

A. Claims 1-4, 7, 8, 11, 12 and 14-26 stand rejected under 35 U.S.C. § 103(a) over WO 02/030939 ("WO '939") in view of JP 07-02115 ("Nakajima") for the reasons stated at section (2) of the Office Action. U.S. Patent No. 6,774,255 to Tardivat et al. ("Tardivat") was cited as an English-language equivalent of WO '939. Claims 7 and 11 have been cancelled. The rejection of claims 1-4, 8, 12 and 14-26 is respectfully traversed.

Claims 1-23 are directed to a tire **belt**, claims 24 and 25 are directed to a tire comprising the recited tire **belt**, and independent claim 26 is directed to a process for preparing a tire **belt**. The tire belt comprises at least one rubber composition based on an isoprene elastomer, a reinforcing inorganic filler, and a silane polysulfide coupling agent having the claimed formula (I). Claims 1 and 26 have been amended to recite that "the symbols R^3, which may be identical or different, each represent a **monovalent hydrocarbon group** selected from among the group consisting of alkyls, whether straight-chain or branched, having from 1 to 4 carbon atoms, and alkoxyalkyls, whether straight-chain or branched, having from 2 to 8 carbon atoms" (emphasis added).

Initially, desired properties for a tire belt are described at pages 2 and 20 of the specification. These properties include acceptable rigidity, hysteresis and processability. One skilled in the art could not reasonably predict that a composition suitable for use in tire treads, for example, would be useful for tire belts.

The applied combination of references does not suggest the claimed tire belt, tire or process of preparing a tire belt. Particularly, Tardivat discloses the following specific mono**hydroxy**silane polysulfide:



$$HO-\underset{R}{\overset{R}{\underset{|}{\overset{|}{Si}}}}-R'-S_x-R'-\underset{R}{\overset{R}{\underset{|}{\overset{|}{Si}}}}-OH$$

(Tardivat at Abstract; column 3, lines 49-60). The Examiner acknowledges that Tardivat discloses this specific silane polysulfide. Tardivat does not disclose or suggest a tire belt comprising the rubber composition containing the silane polysulfide having the formula (I) recited in claim 1.

Applicant submits that Nakajima does not cure the deficiencies of Tardivat. The Office Action asserts that Nakajima shows that general compositions, i.e., those having diene elastomers, inorganic fillers and coupling agents, are commonly used to manufacture tire belt plies. Nakajima discloses the use of Si69, the commercial name of TESPT. At the least, Nakajima fails to provide the requisite suggestion or motivation to modify Tardivat's mono**hydroxy**silane polysulfide to result in the claimed silane polysulfide coupling agent having the formula (I) recited in claim 1. Accordingly, because the applied references do not suggest the combination of features recited in claim 1, the references do not support a *prima facie* case of obviousness.

Moreover, rubber compositions comprising the silane of formula (I) recited in claim 1 were tested in comparison to formulations containing TESPT or "Si69" silane. See comparative tests III-2 at pages 18-21 of the specification. These test results provide evidence of the unexpectedly improved results, including a very significant increase in **resistance to fatigue and cracking**, provided by the claimed subject matter. See the specification at page 21, lines 13-25, and Table 2. Applicant submits that these comparative test results are sufficient to rebut any alleged *prima facie* obviousness with respect to the tire belt recited in claim 1.

For at least the foregoing reasons, the tire belt recited in claim 1 is patentable over the combination of Tardivat and Nakajima. Claims 2-4, 8, 12 and 14-25, which depend from claim 1, are also patentable over the applied references for at least the same reasons as those for which claim 1 is patentable.

Regarding the process of preparing a tire belt recited in claim 26, at the least, the applied references also do not suggest incorporating the recited silane polysulfide as coupling agent in an isoprene elastomer to produce the claimed tire belt. Thus, the process recited in claim 26 is also patentable over the applied references.

Therefore, withdrawal of the rejection is respectfully requested.

B. Claims 1-6, 8-10 and 12-26 stand rejected under 35 U.S.C. § 103(a) over French Patent No. 00/01012 ("WO '012") in view of Nakajima. U.S. Patent No. 6,951,897 to Penot ("Penot") was cited as an English-language equivalent of WO '012. The rejection is respectfully traversed.

Penot discloses a rubber composition for the manufacture of tires, comprising a diene elastomer, a reinforcing inorganic filler, and a polysulfurized alkoxysilane as coupling agent. Penot does not disclose a tire belt, much less a tire belt comprising an isoprene rubber and the silane of formula (I). Penot teaches using conventional silanes having three alkoxy (OR) groups. Penot generically discloses coupling agents (column 10, lines 5-29). Penot discloses that the conventional TESPT or TESPD is very preferred (column 10, lines 45-63; Examples shown in Tables 1, 3, 5, 7, 11 and 13, which only use TESPT as the coupling agent).

As discussed above, Nakajima also discloses the use of TESPT. Accordingly, neither Penot nor Nakajima suggests replacing a **trialkoxy**silane as the conventional TESPT by a **monoalkoxy**silane, as claimed, to address the problem of improving the wear properties of a tire belt. Accordingly, even if the disclosures of Penot and Nakajima were combined, these references still would not have suggested a tire belt comprising every feature recited in claim 1, including, *inter alia*, the silane polysulfide of formula (I). Thus, the applied references do not support a *prima facie* case of obviousness.

Moreover, as compared to TESPT disclosed in Penot and Nakajima, the claimed rubber composition provides a very significant and unexpected increase in fatigue and cracking resistance. As discussed above, TESPT was tested and found to provide inferior properties as compared to the claimed rubber composition including the silane of formula (I). According to M.P.E.P. § 716.02(e), the claimed subject matter need only be compared to the **closest prior art** to be effective to rebut a *prima facie* case of obviousness. There is no requirement to compare the claimed subject matter with subject matter that may be suggested by a **combination of references** relied upon in a rejection under 35 U.S.C. § 103, as this "would be requiring comparison of the results of the invention and the results of the invention." *In re Chapman*, 148 USPQ 711, 714 (CCPA 1966) and MPEP § 716.02(e)(III). Thus, Applicant is not required to compare the results of the claimed subject matter to subject matter that is allegedly disclosed in the combination of Penot and Nakajima. Assuming that the Examiner considers Penot to be the "closest prior art," then the results of the claimed subject matter should properly be compared to Penot. Applicant submits that the test results described in the application are sufficient to rebut any alleged *prima facie* obviousness.

Thus, the tire belt recited in claim 1 is patentable over the combination of Penot and Nakajima. Claims 2-6, 8-10 and 12-25, which depend from claim 1 are also patentable over the applied references for at least the same reasons as those for which claim 1 is patentable.

Regarding the process of preparing a tire belt recited in claim 26, at the least, the applied references do not suggest incorporating the recited silane polysulfide as coupling agent in an isoprene elastomer to produce the claimed tire belt. Thus, the process recited in claim 26 is also patentable over the applied references.

Therefore, withdrawal of the rejection is respectfully requested.

Conclusion

For at least the reasons discussed above, it is respectfully requested that this application is in condition for allowance and such action is earnestly solicited. Should there be any questions regarding this reply or the application in general, it is respectfully requested that the undersigned be contacted at the number given below.

Respectfully submitted,

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